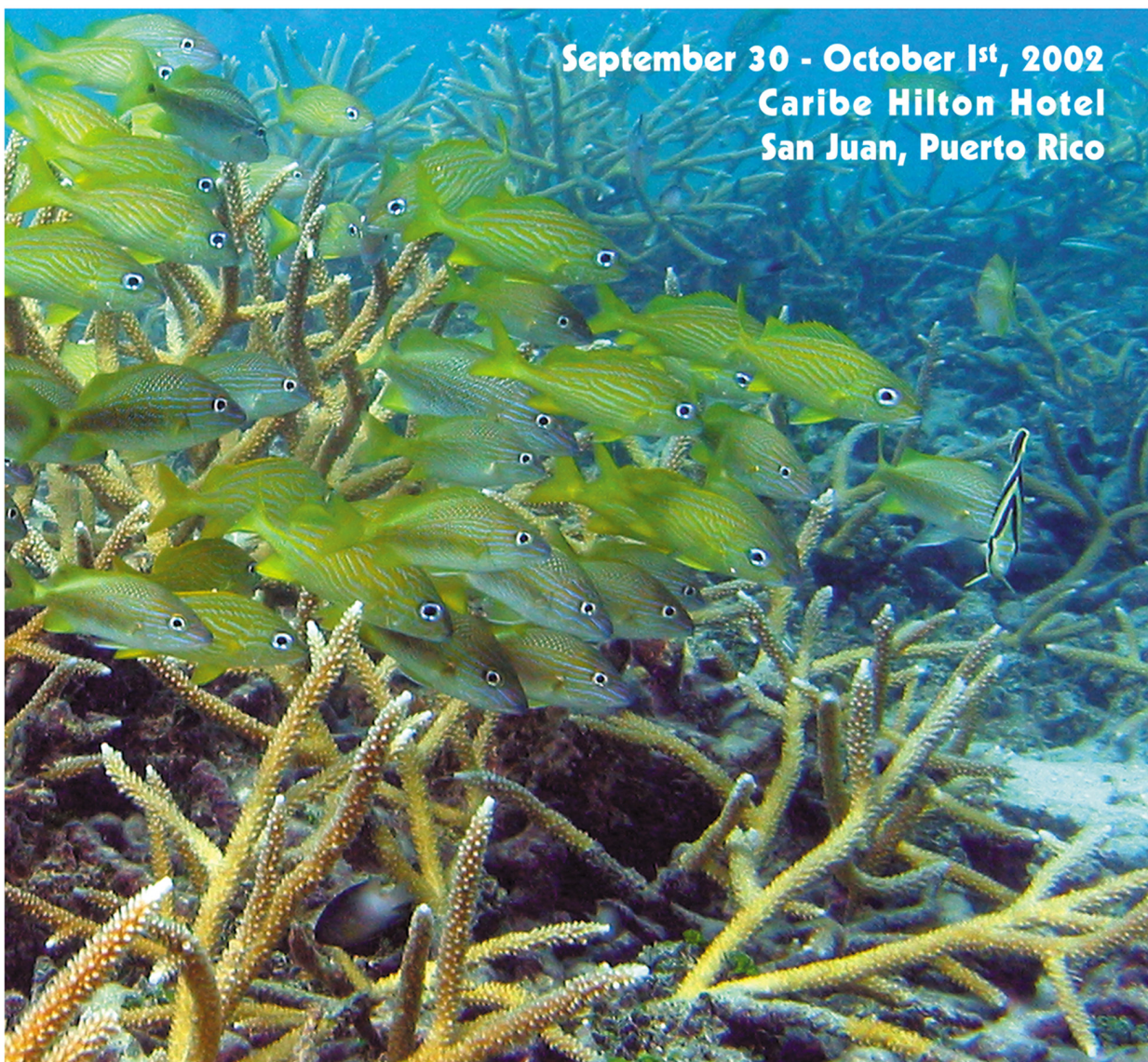


◆ PROCEEDINGS ◆

coral reef fisheries:



September 30 - October 1st, 2002
Caribe Hilton Hotel
San Juan, Puerto Rico



**CARIBBEAN REGIONAL WORKSHOP:
COLLABORATION ON SUCCESSFUL
MANAGEMENT, ENFORCEMENT AND
EDUCATION METHODS FOR FISHERIES
MANAGERS OF THE U.S. CARIBBEAN**

***Caribbean Regional Workshop
on Coral Reef Fisheries Management:
Collaboration on Successful Management,
Enforcement and Education Methods***

September 30 - October 1st, 2002

Caribe Hilton Hotel
San Juan, Puerto Rico

Workshop Objective: The regional workshop allowed island resource managers, fisheries educators and enforcement personnel in Puerto Rico and the U.S. Virgin Islands to identify successful coral reef fishery management approaches. The workshop provided the U.S. Coral Reef Task Force with recommendations by local, regional and national stakeholders, to develop more effective and appropriate regional planning for coral reef fisheries conservation and sustainable use. The recommended priorities will assist Federal agencies to provide more directed grant and technical assistance to the U.S. Caribbean.

Background: Coral reefs and associated habitats provide important commercial, recreational and subsistence fishery resources in the United States and around the world. Fishing also plays a central social and cultural role in many island communities. However, these fishery resources and the ecosystems that support them are under increasing threat from overfishing, recreational use, and developmental impacts.

This workshop, held in conjunction with the U.S. Coral Reef Task Force Meeting, brought together island resource managers, fisheries educators and enforcement personnel to compare methods that have been successful, including regulations that have worked, effective enforcement, and education to reach people who can really effect change. These efforts were supported by Federal fishery managers and scientists, Puerto Rico Sea Grant, and drew on the experience of researchers working in the islands and Florida. The workshop helped develop approaches for effective fishery management strategies in the U.S. Caribbean and recommended priority actions to the U.S. Coral Reef Task Force for actions to be implemented over the next three years.

This workshop was proposed by the States and territories and has been identified as a top priority of the All Islands Coral Reef Initiative. NOAA Fisheries has begun planning a companion Regional Fishery Management Workshop for the U.S. Pacific, to be held in 2003. *This workshop was sponsored by University of Puerto Rico Sea Grant, NOAA Sea Grant and NOAA Fisheries.*



U.S. CARIBBEAN REGIONAL FISHERIES WORKSHOP
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U.S. CARIBBEAN REGIONAL CORAL REEF FISHERIES MANAGEMENT WORKSHOP

Introduction from the Steering Committee

Coral reef fisheries are a vibrant component of the culture and economy of communities in Puerto Rico and the United States Virgin Islands. They provide food, employment and recreation for residents and visitors alike. Unfortunately, coral reef fisheries in the region have been overfished, threatening both the fisheries and the reef ecosystems themselves. The *U.S. Caribbean Regional Workshop on Coral Reef Fisheries Management* was designed to help island resource managers, fisheries educators and enforcement personnel in Puerto Rico and the U.S. Virgin Islands to identify successful coral reef fishery management approaches.

This workshop, held in conjunction with the U.S. Coral Reef Task Force Meeting, brought together island resource managers, fisheries educators and enforcement personnel to compare methods that have been successful, including regulations that have worked, effective enforcement, and education to reach people who can really effect change. These efforts were supported by Federal fishery managers and scientists, University of Puerto Rico Sea Grant, and drew on the experience of researchers working in the islands and Florida.

The workshop provided the U.S. Coral Reef Task Force with recommendations by local, regional and national stakeholders, to develop more effective and appropriate regional planning for coral reef fisheries conservation and sustainable use. The recommended priorities will assist Federal agencies to provide more directed grant and technical assistance to the U.S. Caribbean.

This workshop was proposed by the States and territories and was identified as a top priority of the All Islands Coral Reef Initiative. Regional Fishery Management Workshops for the U.S. Pacific will be sponsored by NOAA Fisheries in the fall of 2003.

U.S. Caribbean Regional Fisheries Workshop Steering Committee:

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U.S. CARIBBEAN REGIONAL CORAL REEF FISHERIES MANAGEMENT WORKSHOP

Workshop Summary

The *U.S. Caribbean Regional Workshop on Coral Reef Fisheries Management: Collaboration on Successful Management, Enforcement and Education*, met in San Juan, Puerto Rico on September 30 and October 1, 2002. The workshop was sponsored by the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries), NOAA Sea Grant, and University of Puerto Rico Sea Grant, and held under the auspices of the U.S. Coral Reef Task Force. The workshop responded to the U.S. All Islands Coral Reef Initiative and the program was developed by a steering committee, led by local resource managers from Puerto Rico and the United States Virgin Islands (USVI).

The goal of the workshop was to assist island resource managers, fisheries educators and enforcement personnel in Puerto Rico and the U.S. Virgin Islands to identify successful coral reef fishery management approaches. The workshop provided the U.S. Coral Reef Task Force with recommendations by local and regional stakeholders, to develop more effective and appropriate regional planning for coral reef fisheries conservation and sustainable use. The recommended priorities will assist Federal agencies to provide more directed grant and technical assistance to the U.S. Caribbean.

The workshop heard talks from 18 speakers and 15 panelists. It was attended by over 120 territory, commonwealth, state and federal managers; fishers; non-governmental organizations (NGOs); educators, researchers, and community members, all participating actively in extended discussion periods and break-out sessions.

Workshop presentations and discussions were organized into four major areas:

1. *Coral Reef Fisheries Uses:*

This opening session provided a general introduction to the state of reef fisheries in the U.S. Caribbean. Managers from Puerto Rico and USVI provided summaries of commercial, artisanal, and recreational fisheries in their jurisdictions. Case studies of the socio-economics of trap fisheries in Puerto Rico and the impacts of recreational fishers and other boaters on seagrass beds in Puerto Rican reserves were presented. A panel provided perspectives of local fishers, aquarium fish collectors, and the dive industry.

2. *Reef Fisheries and Marine Management:*

The second session explored how fisheries fit in the larger context of coral reef management. Of special interest is the link between marine protected area management and fisheries and the implementation of no-take reserves. Speakers presented examples of fishery issues in reserves at Culebra, Puerto Rico, the developing St. Croix East End Marine Park and a proposed Turromote reserve in Puerto Rico. Initial results from a study on the impacts of trap fishing on coral reef habitat were presented. A panel presented scientific perspectives on fishery management and lessons learned from the

Florida Keys National Marine Sanctuary and community-based management of a marine park in St. Lucia.

3. *Coral Reef Fisheries Regulations and Enforcement*

This session explored the challenges facing the regulation of coral reef fisheries in each jurisdiction and provided recommendations for ways in which new regulations might assist management. The session included presentations on both islands' current coral reef fisheries regulations and Puerto Rico's process for revising its fishery regulations. A short video from USVI presented concerns relating to the growing trammel net fishery. The Chairman of the St. Croix Fisheries Council discussed fishery regulations proposed for St. Croix by the fishers themselves. The session also presented the state of fisheries enforcement in Puerto Rico and identified additional enforcement needs. A panel presented legal perspectives on coral reef conservation planning, industry-led voluntary alternatives to regulating the ornamental fish industry, and international cooperation on enforcement of natural resource laws.

4. *Coral Reef Fisheries Education and Outreach*

This final session explored how education and outreach can contribute to the improved management of coral reef fisheries. Presentations included Puerto Rico's Department of Natural and Environmental Resources' Education and Outreach Program, Sea Grant's education and outreach efforts in Puerto Rico and USVI, and a local non-governmental organization's coral propagation project as a community outreach tool. A panel presented NGO perspectives on improving reciprocal learning among managers, fishers and local communities.

In addition to the formal sessions, the workshop included break-out sessions on overfishing, habitat impacts of fisheries, and harvesting of coral reef organisms for the aquarium trade. These sessions allowed additional involvement by all participants.

The workshop highlighted a number of aspects of coral reef fisheries in the U.S. Caribbean:

- Reef fisheries represent important cultural, economic and recreational resources for island communities in the U.S. Virgin Islands and Puerto Rico that need to be sustained.
- Overfishing - both recreational and commercial - is a major problem on coral reefs in Puerto Rico and the U.S. Virgin Islands, threatening the livelihoods of fishers, their culture and the way of life of coastal communities, and the integrity of the reef ecosystems themselves.
- Certain fishing techniques and operations also have impacts on habitats. While recognizing that these are neither the only nor the biggest impact degrading coral reef habitats, on a local scale they can cause damage and need to be addressed.
- Workshop participants also stressed that a major threat to the sustainability of reef fisheries is the degradation of essential fish habitat and water quality due to poorly planned coastal development and pollution. A comprehensive solution to fisheries and conservation must deal effectively with these non-fishing issues.

The *U.S. Caribbean Regional Workshop on Coral Reef Fisheries Management* developed a number of targeted recommendations (see below). These recommendations were presented to the U.S. Coral Reef Task Force at its Eighth Meeting, held in San Juan, Puerto Rico immediately following the coral reef fisheries workshop. These recommendations should form an important contribution into the development of Local Action Strategies that will guide local and regional action to address overfishing on coral reefs.